# Trip Unit Toolkit

## Manage. Monitor. Test.

VERIFICATION

# Insights today.
# Performance tomorrow.

**Trip Unit Toolkit** is a powerful software package that enables users to manage, monitor and test parameters present in the GE range of EntelliGuard*, PremEon* and *micro*EntelliGuard* trip units. Its intuitive interface provides simple, easy access to manage functionality from startup and commissioning to maintenance and testing directly on your personal computer.

The *free* Trip Unit Toolkit can be downloaded at **www.geindustrial.com/free**. In addition to English, language packs are available for French, Italian and Spanish. This Toolkit easily integrates with new or existing installations.
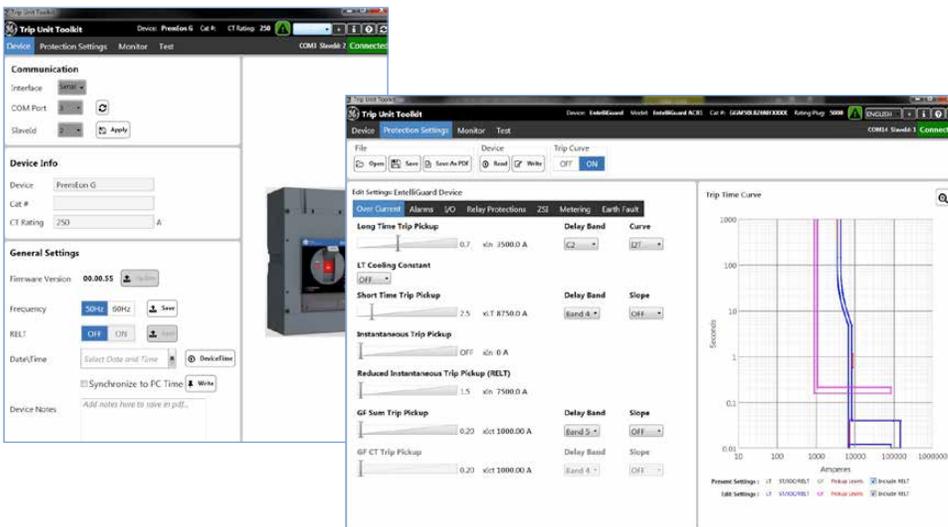




**The intuitive software interface includes data such as metering values and timings for overload or ground fault protection.**

## Manage

The Trip Unit Toolkit makes it easy and convenient to set parameters for overcurrent, alarms, I/O relays and ZSI. When connected, the values are read from the trip unit memory via the RS232, USB (located in front of the trip unit) or RS485 (located in the back).

Use the Protection Settings tab to modify and save values into the trip unit memory. If available, other settings such as the protection relays, alarms, relay inputs/outputs, Reduced Energy Let Thru (RELT) and Zone Selective Interlocking (ZSI) may be read and saved in the same manner.

For added convenience, you can manage and edit trip settings offline or create an offline data file. This allows you to save your settings quickly, and easily copy and paste to multiple trip units in your installation.
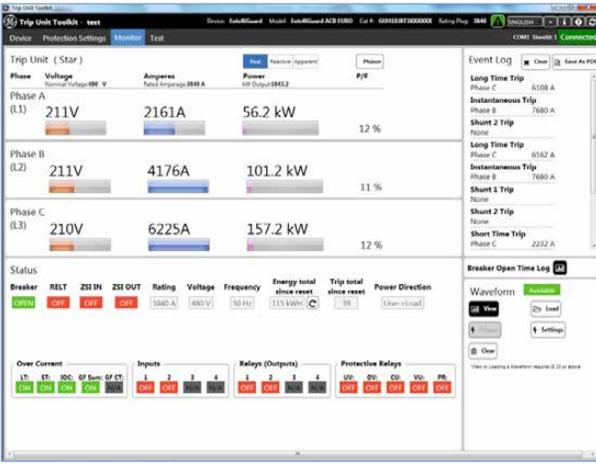
## Monitor

Troubleshooting or simple performance checks are easy with the Trip Unit Toolkit. The Monitor tab displays waveforms, event logs and real-time data including metering, phasor diagrams and circuit breaker status.

The software also tracks and provides critical predictive analytics such as contact wear and mechanism timing data, and compares the most recent event to the original factory performance testing.
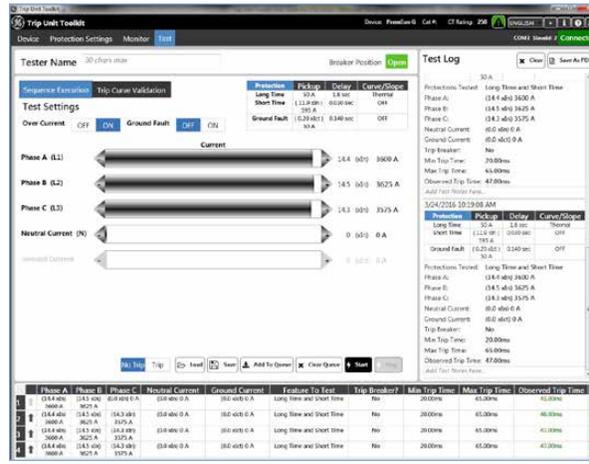
## Test

Using the Trip Unit Toolkit, you can digitally test, record and share results for circuit breaker diagnostics. The Test tab provides the flexibility to set circuit breaker specifications for overcurrent and ground fault, and then test it in either a trip or no trip mode for curve validation.

The Test tab also provides the ability to create a sequence so your operators can run multiple tests remotely– safely removed from the equipment. For added convenience, the software generates a downloadable summary test log for your reference.

## Compatibility

### Communication – Plug & Play

- Auto detects the connected communication ports
- Serial or Ethernet
- One trip unit at a time (change Modbus/Slave ID to connect to the trip unit)
- 4 Main Tabs: Device, Protection Settings, Monitor, Test

### Supports Full GE Industrial Circuit Breaker Portfolio

- **EntelliGuard and Power Break* II** Circuit Breakers, with EntelliGuard Trip Unit – connect with GTUTK20 Test Kit

- **GuardEon*** Circuit Breakers, with PremEon S or G Trip Unit– connect with micro USB

- **Record Plus*** Circuit Breakers with PremEon S Trip Unit – connect with micro USB

- **Spectra*** Circuit Breakers, with *micro*EntelliGuard Trip Unit – connect with GTUTK20 Test Kit
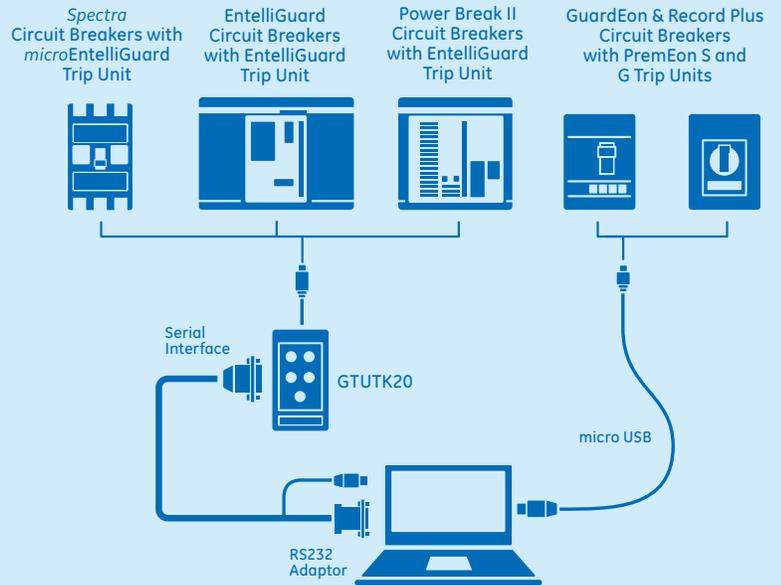


The trip unit requires an external power source for toolkit operation and has been designed for a Windows® 7 or higher operating system.

- For PremEon S and G trip units the power supply from a connected laptop via a standard USB to micro USB cable will suffice.

- For EntelliGuard TU and *micro*EntelliGuard trip units a GTUTK20 test kit is required for laptop integration. The test kit uses a serial interface for communications and power.
(Note: Computers without a serial communications port require a USB to RS232 adapter cable.)

# Available Functionalities

| | Function | Trip Units | | | | |
|---|---|---|---|---|---|---|
| | | EntelliGuard [1] | microEntelliGuard[2] | PremEon S (E frame) | PremEon S (G & K frame) | PremEon G (K frame) |
| **Manage** | Catalog Number (Read Only) | √ [4] | √ | | √ | √ |
| | Device Name Edit and Save | √ [4] | √ | | | √ |
| | Display Trip Time Curve | √ | √ | √ | √ | √ |
| | Earth Fault Protection Settings | √ | | | | |
| | Frequency Change | √ | √ | | | √ |
| | Offline Protection Setting | √ | √ | | | √ |
| | Read/Write Settings | √ | √ | *Read Only* | *Read Only* | √ |
| | Save as PDF | √ | √ | √ | √ | √ |
| | Trip Unit Firmware Update Feature | √ [3] | √ | √ | √ | √ |
| | Trip Unit Language Pack Upload | √ [4] | | | | |
| | Test Log (Save as PDF) | √ [4] | √ | | √ | √ |
| | Protections LT, ST, I, GF (SUM-CT) | √ | √ | *Read Only* | *Read Only* | √ |
| **Monitor** | Alarms | √ | √ | | | √ |
| | Breaker Open Time Log | √ [4] | | | | √ |
| | Events Logging | √ | √ | √ | √ | √ |
| | Monitor Metering & Status Information | √ | √ | √ [5] | √ | √ |
| | Phasor Diagram | √ | √ | | | √ |
| | Waveform Capture | √ | √ | | √ | √ |
| | Trip Counters | √ | √ | √ | √ | √ |
| **Test** | Digital Current Injection Testing | √ [4] | √ | | √ | √ |
| | Overcurrent Testing (LT, ST) | √ | √ | | √ | √ |
| | Ground Fault Testing (GF) | √ | √ | | √ | √ |
| | RELT I/Os (Input Display, Forcing Out) | √ | √ | | | √ |
| | Trip Curve Validation | √ | √ | | √ | √ |

[1] Not all functionality applies to Power Break II circuit breakers.

[2] Supported in latest version of MET.

[3] Supported in Firmware version 08.00.20 or later.

[4] Supported in Firmware version 08.00.26 or later.

[5] Only status information is available.

# How to order:

The free Trip Unit Toolkit can be downloaded at

## geindustrial.com/free



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